



having four curved branches a quarter wavelength long at the center frequency. However, nowhere in Ho is there any disclosure of the coupler being a differential coupler or of the coupler being arranged to couple differential radio frequency signals.

The Office Action asserts that Ho discloses all the elements of claim 1 inasmuch as Ho discloses a hybrid coupler with four ports. To support this assertion, the Action points to Figures 1 and 2 of Ho. This assertion is unfounded for the following reason.

As discussed in the specification on pages 17 and 18, a differential hybrid coupler comprises two identical hybrid coupler structures placed above one another in separate substrate layers. In contrast, the hybrid coupler of Ho contains a single structure. Therefore, the coupler of Ho is not capable of coupling *differential* radio frequency signals as claimed.

Independent claim 8 defines an amplifying circuit that includes, *inter alia*, a first and second hybrid coupler implemented as differential hybrid couplers arranged to couple differential radio frequency signals, and a first and second differential amplifier. Accordingly, independent claim 8 is patentably distinguishable over Ho for at least the reason that Ho fails to disclose an amplifying circuit that includes a first and second differential hybrid coupler and a first and second differential amplifier as claimed.

Independent claim 17 defines a method of amplifying radio frequency signals. The method includes, *inter alia*, applying, coupling and amplifying the radio frequency signals as differential signals from the input port of a first hybrid coupler to the output port of a second hybrid coupler. Accordingly, independent claim 17 is patentably distinguishable over Ho for at least the reason that Ho fails to disclose a method of amplifying radio frequency signals that includes applying, coupling and amplifying the radio frequency signals as differential signals from the input port of a first hybrid coupler to the output port of a second hybrid coupler.

Claims 2, 3, 7-10, 13 and 14 variously depend from independent claims 1 and 8. Therefore claims 2, 3, 7-10, 13 and 14 are patentably distinguishable over Ho for at least those reasons presented above with respect to claims 1 and 8. Accordingly, Applicant

respectfully requests reconsideration and withdrawal of the rejection of claims 1-3, 8-10, 13, 14 and 17 under 35 U.S.C. §102(b) in view of Ho.

In paragraph 3, the Office Action rejects claims 1 and 4-7 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,911,372 to Seidel ("Seidel"). Applicant respectfully traverses this rejection.

As discussed above, in order to support a rejection under 35 U.S.C. §102, the cited reference must teach each and every claimed element. In the present case, claims 1 and 4-7 are not anticipated by Seidel for at least the reason that Seidel fails to disclose each and every claimed element.

Seidel discloses an amplifier with matched input and output impedance. The amplifier includes, among other things, a first and second 3 db hybrid coupler. However, Seidel, like Ho, fails to disclose the hybrid couplers are implemented as differential couplers arranged to couple differential radio frequency signals as claimed. Therefore, claims 1 and 4-7 are not anticipated by Seidel. Accordingly, Applicant respectfully request reconsideration and withdrawal of the rejection of claims 1 and 4-7 under 35 U.S.C. §102 in view of Seidel.

In paragraph 5, the Office Action rejects claims 11, 12, 15 and 16 under 35 U.S.C. §103(a) as being unpatentable over Ho in view of Seidel. Applicant respectfully traverses this rejection.

It is well known that in order to support a rejection under 35 U.S.C. §103, three basic criteria must be met. One of the three criteria is that the combination must teach each and every claimed element. In the present case, claims 11, 12, 15 and 16 are not rendered unpatentable by the combination of Ho and Seidel for at least the reason that the combination fails to disclose or suggest each and every claimed element.

Since both Ho and Seidel fail to disclose a portable device (claim 15 and 16) or an amplifying circuit (claims 11 and 12) that comprises a first and second hybrid coupler implemented as a differential coupler, and a first and second differential amplifier, the combination of these two patents cannot possibly disclose or suggest said features. Therefore, even if one skilled in the art were motivated to combine Ho and Seidel, as

suggested by the Office Action, the combination would still fail to render claims 11, 12, 15 and 17 unpatentable for at least the reason that the combination fails to disclose or suggest each and every claimed feature. Accordingly, Applicant respectfully request reconsideration and withdrawal of the rejection of claims 11, 12, 15 and 16 under 35 U.S.C. §103(a).

For the foregoing reasons, it is respectfully submitted that all pending claims are allowable over the prior art of record. Reconsideration and withdrawal of the rejections are therefore respectfully requested.

The application is in condition for allowance. Notice of same is earnestly solicited. Should the Examiner have any questions regarding this application, the Examiner is invited to phone the undersigned at the telephone number provided below.

Respectfully submitted,

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2819



Patent  
Attorney's Docket No. 032927-025

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of	)	
	)	
Per-Olof BRANDT	)	Group Art Unit: 2819
	)	
Application No.: 09/994,884	)	Examiner: L. Nguyen
	)	
Filed: November 28, 2001	)	Confirmation No.: 8450
	)	
For: A RADIO FREQUENCY AMPLIFYING	)	
CIRCUIT	)	
	)	
	)	

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**AMENDMENT/REPLY TRANSMITTAL LETTER**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Enclosed is a reply for the above-identified patent application.

- ☐ A Petition for Extension of Time is also enclosed.
- ☐ A Terminal Disclaimer and a check for ☐ \$55.00 (2814) ☐ \$110.00 (1814) to cover the requisite Government fee are also enclosed.
- ☐ Also enclosed is \_\_\_\_\_.
- ☐ Small entity status is hereby claimed.
- ☐ Applicant(s) request continued examination under 37 C.F.R. § 1.114 and enclose the ☐ \$375.00 (2801) ☐ \$750.00 (1801) fee due under 37 C.F.R. § 1.17(e).
- ☐ Applicant(s) previously submitted \_\_, on \_\_, for which continued examination is requested.
- ☐ Applicant(s) request suspension of action by the Office until at least \_\_, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.
- ☐ A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (146/246) is also enclosed.
- ☒ No additional claim fee is required.



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